

of

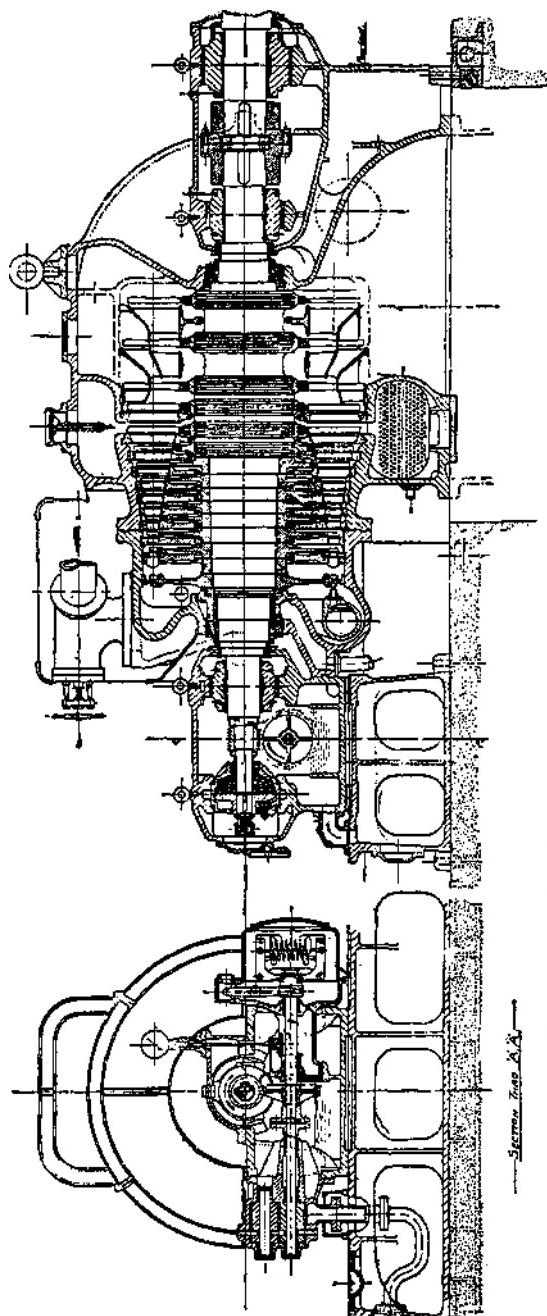


Fig. 21.—Section through a 12,500-Kw-3000-r.p.m. Metropolem-Vickers Steam Turbine

smaller diameter discs and shorter blade lengths, the effective blade area of the last expansion, being the sum of the outer areas of the multiple stages plus that of the complete last stage.

T
h
e
n
e
s
t
o

f

t
u
b
e
s

w
h
i
c
h

i
s

s
h
o
w
n

i
n

t
h
e

l
o
w
e
r

p
a
r
t

o
f

t
h
e

t
u
r
b
i
n
e

c
a
s
i
n
g

,

a
n
d

w
h
i
c
h

p
a
s
s
e
s

a
c
r
o
s
s

t
h
e

f
u
l
l

l
e
n
g
t
h

o
f

t
h
e

c
a
s
i
n
g
,

r
e
p
r
e

s
e
n
t
s

a
f
e
e
d

h
e
a
t
e
r

f
o
r
m
i
n
g

p
a
r
t

o
f

t
h
e

c
o
m
p
a
n
y
'
s

p
a
t
e
n
t

f
e
e
d

-

h
e
a
t
i
n
g

s
y
s
t
e
m

w
h
i
c
h

i
s
,

e
m
b
o
d
i
e
d

i
n

a
l
l

t
h
e
i
r

m
e
d
i
u
m

s
i
z
e

a

n
d

l
a
r
g
e

t
u
r
b
i
n
e
s

.
T
h
e

f
e
e
d
-
h
e
a
t
e
r

i
n

-

s
t
a
l
l
a
t
i
o
n

c
o
n
s
i
s
t
s

o
f

a

m
a
i
n

h
e
a
t
e
r

o
f

t
h
e

s
u
r
-

f
a
c
e

t
y
p
e
,

f
i
t
t
e
d

w
i
t
h

t
h
e

t
u
r
b
i
n
e

c
a

s
i
n
g

a
c
r
o
s
s

w
h
i
c
h

i
t

e
x
t
e
n
d
s
,

a
n
d

a

s
u
b
s
i
d
i
a
r
y

s
u
r
f
a
c
e

h
e
a
t
e
r

w
h
i
c
h

i
s

a
r
r
a
n
g
e
d

i
n

a

h
o
r
i
z
o
n
t
a
l

p
o
s
i
t
i
o
n

a
t

r
i
g
h
t

a
n
g
l
e
s

t
o

t
h
e

m
a
i
n

h
e
a
t
e
r
. .

T
h
e

s
u
b
s
i
d
i
a
r
y

h
e
a
t
e
r

i
s

a
r
r
a
n
g
e
d

v
e
r
t
i
-

c
a
l
l

y

m
e
r
e
l
y

f
o
r

s
h
o
w
i
n
g

c
l
e
a
r
l
y

a
l
l

t
h
e

c
o
n
n
e
c
t
i
o
n
s

i
n

d
i
a
g
r
a
m
m
a
t

i
c

f
o
r
m

(
f
i
g
.

2
2
)
.

T
h
e

m
e
t
h
o
d

o
f

o
p
e
r
a
t
i
o
n

i
s

a
s

f
o
l
l
o
w
s
:

The condensate is withdrawn from the condenser by the extraction pump c, which pumps the feed, first through

the lower portion D of the subsidiary heater B, second through the main heater A, and then through the upper portion of the subsidiary heater to the feed outlet F.

The tubes of the main heater are exposed to steam, which is diverted